

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WYOMING

PETITION TO AMEND WYOMING	)	
OIL AND GAS CONSERVATION	)	POWDER RIVER BASIN
COMMISSION RULES, CHAPTER	)	RESOURCE COUNCIL, et al.
3, SECTION 39, CHAPTER 4,	)	
SECTION 4, CHAPTER 3, SECTION	)	
22, AND CHAPTER 4, SECTION 3	)	

COME NOW, Petitioners, who hereby petition pursuant to Wyo. Stat. § 16-3-106, and Wyoming Oil and Gas Conservation Commission (“WOGCC” or “Commission”) regulations Chapter 5, Section 9, to amend WOGCC regulations Chapter 3, Section 39 related to natural gas flaring, Chapter 4, Section 4 and Chapter 3, Section 22 related to setbacks from homes and businesses, and Chapter 4, Section 3 related to accidents and spills. As described below, Petitioners’ amendments are necessary to protect the health, safety, and livelihoods of citizens of the state, the economic interests of state and local governments, and air, land, and water quality in Wyoming.

PETITIONERS

Petitioners represent and include citizens from across Wyoming who are directly impacted by oil and gas operations in the state. Petitioners include:

The Powder River Basin Resource Council (“PRBRC” or “the Resource Council”) was founded in 1973 by ranchers and citizens dedicated to ensuring the viability of Wyoming’s agricultural heritage and rural lifestyle. The Council, along with its over 1,000 members throughout the state, is dedicated to promoting the responsible development of Wyoming’s valuable mineral resources.

Citizens United for Responsible Energy Development (“CURED”) is a nonprofit organization formed to protect air quality, water quality, other elements of the environment, and human health in and about Sublette County, and to educate the public regarding energy development related issues.

The Laramie County Association of Surface Owners (“LCASO”) is an association of landowners residing in Northstar Ranch and Legacy Ridge north-northwest of Cheyenne.

LCASO was founded to protect property values. The stated purpose of LCASO is not to preclude mineral development, but to insure that any such development meets the strictest standards of safety and protection of the aquifer, air, and surface property and its inhabitants.

The Equality State Policy Center (“ESPC”) is a broad-based coalition of Wyoming organizations and citizens that works through research, public education and advocacy to hold Wyoming state and local governments accountable to the people they represent, and to encourage and assist state residents to participate effectively in public policy decision-making.

The Cheyenne Area Landowners Coalition (“CALC”) is a group of citizens in Laramie County dedicated to protecting the interests of landowners whose properties are impacted by mineral mining/extraction related processes. CALC is an affiliate organization of the Resource Council.

The Pavillion Area Concerned Citizens (“PACC”) is a group of citizens dedicated to educating and empowering local residents in Fremont County and surrounding areas to address impacts of oil and gas development and protecting water supplies and other interests that are important to local residents. PACC is an affiliate organization of the Resource Council.

The Clark Resource Council (“CRC”) is a group of concerned citizens dedicated to maintaining the special places and values of the land and community of the Beartooth Front. CRC is an affiliate organization of the Resource Council.

Kristi Mogen lives with her husband and two daughters on a small farm near Douglas. The family raises cows and chickens, and has a large garden. Mrs. Mogen and her family are living with the impacts of a well blowout that emitted vaporized drilling mud and other chemicals over their property. Along with their neighbors, they had to evacuate their homes for several days, and suffered from headaches, burning eyes, bloody noses and lowered oxygen saturation rates. Mrs. Mogen and her family are also impacted from numerous dirty and noisy flaring operations at nearby wells. Mrs. Mogen is devoted to keeping her family safe and healthy and her local environment protected.

Wayne Lax has lived in Cheyenne with his wife for fourteen years on a small five acre piece of land. The location on the eastern edge of town was chosen because of the site’s beauty and proximity to town. The Laxes have enjoyed the peace and quiet of their neighborhood, the clean water from their well, and the clean air. However, the Laxes are now going to be impacted by horizontal drilling near their home. Mr. Lax is concerned about impacts to local water supplies and the threat of prolonged flaring which will impact the air quality and create noise pollution. Mr. Lax is concerned that this drilling is taking place too close to homes and is concerned about the possibility of accidents, spills, explosions, and leaks of toxic chemicals that have happened in Laramie County and in the related oil and gas industry development in neighboring Colorado counties.

Marvin and Evelyn Griffin have lived on their farm near Pavillion for over forty years. The Griffins have been greatly affected by the gas drilling on their property, including twenty-four gas wells. The Griffins' health has been compromised by contaminated water, air, and soil from the oil and gas development. Along with their neighbors, the Griffins work to protect landowner rights by helping to ensure regulatory requirements and health and safety standards are met. They support regulatory improvements to better protect the citizens of Wyoming.

Jim and Deborah Sonderman have owned their property in Clark since 2004. The Sondermans live near four gas wells that are located on the neighboring State Section that is just 400-500 yards west of their home. As a result of natural gas development in the area, the Sondermans' drinking water wells have been contaminated and the water flow has diminished. The contamination has impacted the Sondermans' health and the value of their property. The Sondermans support strengthening Wyoming's oil and gas standards to better protect citizens and public health.

The Petitioners are collectively represented by:

Shannon Anderson, Wyo. Bar # 6-4402
Powder River Basin Resource Council
934 N. Main St., Sheridan, WY 82801
sanderson@powderriverbasin.org

INTRODUCTION

Oil and gas operations have greatly expanded in Wyoming and now touch every corner of our state, impacting private landowners and public resources.

Since 1995, the Commission has permitted 106,119 oil and gas wells. These wells are in locations as geographically diverse as Sublette County to Laramie County to Campbell County, but all wells create impacts to the state's citizens and the environment.

In spite of the great increase in the number of oil and gas wells, the basic fundamentals governing the industry – such as setbacks from homes and schools – have not changed in many decades. Petitioners believe it is time for the state to take a comprehensive look at its regulatory framework for the oil and gas industry and to amend the regulations to ensure they are sufficiently protective.

PROPOSED RULE CHANGES AND SUPPORTING INFORMATION

Petitioners propose three main rule changes: 1) reducing flaring and associated air pollution; 2) increasing setbacks from homes, schools, and businesses; and 3) creating a regulatory violation for accidents and spills. Each of these proposals will be described in turn below.

1. Reducing Flaring Emissions

One of the Commission's main duties is to prevent waste of oil and gas resources. *See* WYO. STAT. ANN. § 30-5-102(a) ("The waste of oil and gas or either of them in the state of Wyoming as in this act defined is hereby prohibited."); WYO STAT. ANN. § 30-5-104(b) ("The commission has authority and it is its duty to make investigations to determine whether waste exists or is imminent..."); and WYO. STAT. ANN. § 30-5-121 (prohibiting the waste of natural gas).

While the Wyoming Conservation Act contemplates exceptions to the definition of "waste" for the "flaring of gas from gas wells...necessary for the drilling, completing or testing of the well," WYO. STAT. ANN. § 30-5-101(a)(i)(G), and the flaring of "gas produced from an oil well pending the time when with reasonable diligence the gas can be sold or otherwise usefully utilized on terms and conditions that are just and reasonable," *Id.* at § 101(a)(i)(E), these exceptions are, by design, limited. The exceptions authorize flaring *only* for limited periods of time when flaring, and the subsequent physical waste of the natural gas resource, is unavoidable.

However, Chapter 3, Section 39 does not embody these limited exceptions and instead authorizes the Commission to broadly authorize the flaring and venting of gas in contravention of the statutory duty to prevent waste. This problem has been compounded with the significant increase in flaring in Wyoming as a result of the new boom in hydraulically fractured horizontal

oil wells in Eastern Wyoming, as evidenced by recent dockets before the Commission. As of March of this year, the Commission approved flaring at sixty-five horizontal oil wells, and the list is only expected to grow in coming months and years. *See* WOGCC, *Wyoming Oil & Gas Conservation Commission Active Approved Well Flaring Authorizations*, Mar. 12, 2013, attached as Exhibit 2. As stated by the Office of State Lands and Investments:

Currently, the intensity of new horizontal drilling seeking oil production from the Cretaceous Niobrara, Mowry, Turner, Parkman, Sussex and Teapot formations in southeastern Wyoming, and more recently in portions of Converse, Campbell, Johnson and Sheridan Counties, has resulted in the flaring of significant volumes of associated gas for extended time frames of up to, and beyond 180 days with no obvious movement toward constructing the appropriate gas gathering or processing infrastructure needed to capture and market this liquid rich gas.

Wyoming Office of State Lands and Investments, *Approval of Royalty-Free Disposition Policy Regarding Flaring of State's Interest Natural Gas*, Feb. 2, 2012, attached as Exhibit 3. In recent flaring applications, many operators have essentially asked for blanket approval for flaring because they have not been able to tell the Commission when they will have the infrastructure in place to stop flaring. *See* Bill Barrett Corporation, *Flaring Application*, Feb. 27, 2013, attached as Exhibit 4. In short, there is no end in sight to flaring at these wells and more like them in the future.

As recognized by the Wyoming Conservation Act, which governs the Commission, the wanton flaring of gas represents a costly waste of a natural resource. Even at today's depressed gas prices, the amount of gas that is flared from horizontal oil wells leads to revenue loss for companies, royalty loss for landowners and the state, and air quality impacts. *See* Letter from Oil & Gas Investors to Operators in North Dakota, Mar. 27, 2012, attached as Exhibit 5 ("Even at today's depressed wellhead price of under \$3.00 per thousand cubic feet, the 100 million cubic feet of natural gas that were flared each day in North Dakota last year represents approximately

\$110 million in lost revenue.”) By Petitioners’ rough calculations, Wyoming stands to lose over \$1.5 million in revenue from the amount of gas currently authorized to be flared by the Commission. Powder River Basin Resource Council, *Estimated Lost Revenue to Wyoming As a Result of Flaring*, April 2013, attached as Exhibit 6. This revenue loss will only increase proportionally with the number of oil wells in Eastern Wyoming. With thousands of horizontal oil wells planned in the Powder River Basin and surrounding counties, Wyoming will lose significant revenue if flaring continues at its current rate. This is especially true because many of these new wells will develop federal mineral resources where the state will lose its share of federal royalties, in addition to severance and ad valorem taxes, as a result of flaring.¹

It is therefore time for the Cowboy State to head the problem off at the pass and reconsider the Commission’s rules to impose greater limitations on the flaring of natural gas. Petitioners’ proposed rule changes 1) ensure that flaring can only be approved by the Commission at a public hearing; 2) limit the amount of flaring; 3) require proof of notice to surface and mineral owners of flaring applications; and 4) require best available technology to control air emissions and noise associated with flaring.

a. Requiring all flaring applications to go to hearing before the Commission

Current regulations in Chapter 3, Section 39 require venting or flaring to be authorized by the Commission. However, the Commission has a policy – not adopted by Commission order or regulations – that allows the Supervisor to approve natural gas flaring applications up to 250 MCF per day per individual well for up to 180 days not exceeding 45,000 MCF total, or up to 1,500 MCF per day up to 15 days. *See* Memorandum from Tom Doll, June 7, 2012, attached as

¹ The Bureau of Land Management’s Buffalo Field Office is currently in the process of revising its Resource Management Plan. A draft of the new plan is expected in May 2013 and it will provide a reasonably for seeable development scenario for the new horizontal oil well development in Johnson, Campbell, and Sheridan Counties.

Exhibit 7. Current statutes or rules do not allow for the Commission to delegate its authority to approve flaring applications to the Supervisor, and arguably, the Supervisor memorandum is unlawful. To clarify this situation, Petitioners propose to amend Chapter 3, Section 39(d) to reaffirm that all applications must be approved by the Commission (except in circumstances otherwise authorized by Chapter 3, Section 39). While Petitioners believe that this is a current legal requirement, additional clarifying language will help to address the situation and correct current Commission staff practices that are in contravention to the statutes and the rules.

Commission approval also serves an important purpose - providing public notice and the opportunity for protests from individuals or corporations with standing. There is growing interest amongst landowners – both surface and mineral owners – about flaring in Eastern Wyoming, in addition to interest from legislators, policy-makers, and citizens organizations, that necessitates an open and deliberative decision-making process.

b. Requiring a limit on the number of days and amount of flaring

Commission regulations allow flaring or venting in certain circumstances with Commission approval. WOGCC regulations Chapter 3, Sections 39(a)-(c). In order to properly limit the amount of flared gas in accordance with Commission mandates to prevent waste, Petitioners propose to reduce flaring in the following ways:

- Limiting emergency flaring to no more than forty-eight (48) hours (proposed Section 39(b)(i));
- Limiting well purging and evaluation test flaring to no more than forty-eight (48) hours (proposed Section 39(b)(ii));
- Limiting production test flaring to no more than seven (7) days or no more than 1,500 MCF (proposed Section 39(b)(iii));

- Limiting the flaring of low rate casing head gas to no more than thirty (30) MCF per day (proposed Section 39(c));
- Limiting the gas that can be flared with Commission approval to no more than ninety (90) days of flaring (proposed Section 39(d)(ii));² and
- Limiting the amount of gas that can be flared with Commission approval to 250 MCF per day (proposed Section 39(d)(iii)).

While Petitioners recognize that flaring may sometimes be unavoidable in certain situations, such as well testing and emergencies, the proposed revisions propose to reign in the regulations to more appropriately apply only to these situations and limit flaring under other conditions to ensure compliance with the statutory goal of preventing waste. Additionally, the proposed revisions limit all other flaring exemptions to a period of ninety days.³ These rule changes are necessary because current authorizations span a range of time periods and can extend up to a full year. *See* Exhibit 2. The Commission needs to exercise greater scrutiny and oversight over flaring authorizations to ensure that statutory requirements to prevent waste are being met.

c. Requiring proof of notice to surface and mineral owners

Landowners are directly impacted by flaring authorizations. Surface owners are impacted by noise and light and air pollution while mineral owners are impacted by the loss of royalty

² Under the proposed amended rules, applications for flaring could presumably be renewed for an additional ninety day period, but only after another hearing before the Commission demonstrating that the continuation of flaring remains unavoidable.

³ Another option is to require the payment of public royalties and taxes on any flared gas to encourage operators to install the necessary infrastructure to capture the gas. However, this change would have to be made in conjunction with the legislature and the Office of State Lands and Investments. The Interim Joint Revenue Committee is studying the topic of lost revenue from flaring and there may be an opportunity for conversation between the Committee and the Commission on the topic.

revenue from flaring. Petitioners propose a new Section 39(d)(ix) to require proof of notice to surface and mineral owners within one mile of the flaring application. This notice would be required to be included in any application for flaring authorization to the Commission. It is Petitioners' understanding that it is the common practice of many operators to already provide this type of notice, *see* Exhibit 4, and the rule change would merely clarify that notice to neighboring landowners is a requirement.

d. Requiring best available technology to control emissions and noise

In addition to the waste of a valuable natural gas resource, flaring and venting also contributes to regional and local air quality impacts and public health concerns. Commission regulations currently limit the venting or flaring of gas with high hydrogen sulfide content through Chapter 3, Section 39(f). However, other pollutants are not considered or limited.

According to expert reports, "Unprocessed natural gas usually contains a mixture of hydrocarbons and other substances, which can form a variety of chemical compounds during combustion." Robert Bott, *Flaring: Questions + Answers*, Canadian Center for Energy Information, 2007, at 12, attached as Exhibit 8. Emissions can include nitrogen oxides (NOx), unburned hydrocarbons, particulate matter, polycyclic aromatic hydrocarbons, and volatile organic compounds (VOCs). *Id.* VOCs can include benzene, which is a known carcinogen. *Id.* Moreover, communities near gas flaring projects are subject to a higher risk of asthma and respiratory illness, and local crops are at risk of becoming contaminated by acid rain if emissions associated with flaring are not properly controlled. *See* S.I. Ovuakporaye, et al., *Effect of Gas Flaring on Lung Function among Residents in Gas Flaring Community in Delta State, Nigeria*, RESEARCH J. OF ENVTL. AND EARTH SCI., May 15, 2012, attached as Exhibit 9.

Technology is available to reduce or prevent the emissions of these pollutants during flaring. Therefore, requiring “clean” flares through the Commission’s regulations should not unduly burden oil and gas production.

Petitioners propose to:

- Require, not merely “encourage,” well operators to employ technologies to minimize or prevent flaring during drilling and completion operations (proposed Section 39(b)(iv));
- Require, not merely encourage, safety methods for the management of sour gas (proposed Section 39(f)(i));
- Require noise controls for flares operating within one (1) mile of occupied dwellings (proposed Section 39(f)(ii));
- Require smokeless flares (proposed Section 39(f)(iii)); and
- Require best available technology to limit emissions from flaring (proposed Section 39(f)(iv)).

2. Increasing Setbacks from Homes

Commission Rules Chapter 4, Section 4(a)(v) provide that operators must “[o]n state and private surfaces, locate wellheads, pumping units, pits, production tanks and/or associated production equipment no less than three hundred fifty (350) feet from any residence, school, hospital, or other places as determined by the Supervisor.” Chapter 3, Section 22(b) further provides that “[p]its, wellheads, pumping units, tanks, and treaters shall be located no closer than three hundred fifty feet (350’) from [water supplies, residences, schools, hospitals, or other structures where people are known to congregate].” Current rules, in both sections, provide that the Supervisor can grant exceptions without a Commission hearing.

Unfortunately, given the extent of oil and gas production and development impacts in the state, these setback rules are now woefully outdated and inadequate to protect citizens.

Neighboring states, such as Colorado, have moved ahead to recently amend their setback requirements to better address the impacts of modern oil and gas production dominated by substantially larger well pads, noisy production equipment, light and air pollution, workers living on site, and increased traffic.

Petitioners propose to increase Wyoming's setback to one-quarter mile to better prevent impacts to neighboring homeowners. Petitioners also propose to amend the regulations to require Commission approval of any exceptions from the setback rule to allow notice to impacted landowners and an opportunity for those landowners to object to the proposed exception.⁴ The revised Chapter 4, Section 4(a)(v) would read as follows:

On state and private surfaces, locate wellheads, pumping units, pits, production tanks and/or associated production equipment no less than one thousand three hundred twenty (1,320) feet from any residence, school, hospital, or other places as determined by the Supervisor. The Commission may impose greater distances for good cause and likewise, grant exception to the 1,320 foot rule after notice to affected parties and opportunity for objection;

The revised Chapter 3, Section 22(b) would read as follows:

Special precautions including, but not limited to, an impermeable liner and/or membrane, monitoring systems, or closed systems, shall be taken, if necessary, to prevent contamination of streams and potable water and to provide additional protection to human health and safety in instances where drilling operations are conducted in close proximity to water supplies, residences, schools, hospitals, or other structures where people are known to congregate. Pits, wellheads, pumping units, tanks and treaters shall be located no closer than one thousand three hundred twenty (1,320) feet from any of the aforementioned items. The Commission may impose greater distances for good cause and

⁴ The Commission could also integrate a landowner waiver process into the setback rule, to allow waiver of the setback without a Commission hearing. The setback requirements for mining operations in the Environmental Quality Act could serve as an example. Wyo. Stat. Ann. § 35-11-406(m)(vii) ("...unless the landowner's consent has been obtained.")

likewise, grant exception to the 1,320 foot rule after notice to affected parties and opportunity for objection.

While no state has yet to impose a quarter-mile setback as Petitioners' are proposing, the state of Maryland has a setback of 1,000 feet from occupied dwellings, schools, and churches. MD. REGS. CODE tit. 26, subtit. 19, ch. 1 § 09(G) (COMAR 26.19.01.09(G)). Additionally, the community of Flower Mound, Texas has a setback of 1,500 feet and several other Texas communities (Dish, Denton, Colleyville, Southlake, and Weatherford) have 1,000 foot setbacks.⁵ Additionally, several major oil and gas producing states have setbacks of at least 500 feet, which is still substantially more than Wyoming's current setback of 350 feet.⁶

To provide the Commission with an idea of how small a 350 foot setback is, here is a picture of the setback traced from the Commission's office building in Casper:



If a well was “setback” under the current rules from the Commission's office, it would be located at the edge of the parking lot, clearly within a distance that would create auditory and visual

⁵ Texas does not have a state-wide setback and instead setbacks are established at the community level.

⁶ Colorado's recently amended rule establishes a 500 foot setback. West Virginia generally allows no drilling within 625 feet of a dwelling pursuant to W. Va. Code Ann. § 22-6A-12. 500 foot residential setbacks generally apply in Louisiana (Louisiana Office of Conservation Order No. U-HS (2009)); North Dakota (N.D. ADMIN. CODE 43-02-03-28); and Pennsylvania (58 PA. CONS. STAT ANN. § 3215).

disturbance to Commission staff and visitors. Now imagine a well (like the one pictured below) in that close proximity to someone's home – or a hospital or school.



An oil well in Converse County, February 2013

Wyoming prides itself on being a leader when it comes to ensuring responsible development of oil and gas resources. Just recently, the Commission led the nation by passing the first hydraulic fracturing disclosure rule. Unfortunately, in the case of setbacks, Wyoming is far behind other states and local governments that have done a better job of proactively addressing impacts to citizens living near oil and gas operations. By adopting this petition for rulemaking, Wyoming has the opportunity to once again become a leader by setting a new national standard for oil and gas setbacks.

As discussed below, there are several important reasons to increase Wyoming's setback.

a. Greater setbacks are needed to protect residents from harmful air emissions

An important reason for increasing the setback from homes is air pollution from wells and related infrastructure. As discussed above, flaring activities release significant amounts of air pollution. Other oil and gas production activities also contribute to air pollution impacts at the local level. In testimony to the Colorado Oil and Gas Conservation Commission, Miriam Rotkin-Ellman, MPH, stated that, "Hydraulic fracturing and oil and natural gas facilities have been identified as potentially significant sources of environmental contaminants and there is

increasing concern about threats to public health.” Miriam Rotkin-Ellman, *Comments Regarding Proposed Colorado Oil and Gas Conservation Commission Statewide Setbacks and Public Health*, Prepared for the Natural Resources Defense Council, Dec. 19, 2012, at 1, attached as Exhibit 10. Ms. Rotkin-Ellman’s testimony details a number of public health concerns related to air pollution from oil and gas facilities, including particulate matter, ozone, volatile organic compounds (VOCs), nitrogen oxides (NOx), and airborne silica, and concludes that greater setbacks are needed to protect the health of residents living near wells and infrastructure from these dangerous emissions. For instance, she states:

Exposure to diesel particulate matter (PM) is a known health hazard and the heavy use of diesel engines in and around oil and natural gas sites (particularly where hydraulic fracturing is being deployed) has raised concerns about unsafe exposures. Sources of diesel PM include truck traffic, drill rigs, pumps and other extraction and construction equipment... The health impacts of diesel pollution are well characterized in the scientific literature and include cancer, respiratory and cardiovascular impacts, premature mortality and adverse birth outcomes.

Id. at 2.

Silica is also fast becoming a dangerous air pollutant at hydraulic fracturing sites because of the use of large amounts of silica sand in the fracking process. Ms. Rotkin-Ellman states that “[h]azardous levels of silica exposure for workers have been documented at fracking sites” and “the proximity of fracking sites to homes and people has raised questions about the potential for community exposures to unsafe levels of silica[, which is]... known to cause silicosis and lung cancer.” *Id.* at 3.

VOCs and NOx emissions also represent threats to the health of residents living near oil and gas wells because these emissions occur at every stage of oil and gas exploration, drilling, and production. A recent study by the U.S. National Oceanic and Atmospheric Administration (NOAA) details that:

Each piece of equipment used to install, operate, or service a well is a known or potential emission source of CH₄, VOCs, nitrogen oxides (NO_x = NO+NO₂), and other gases or particulate matter (PM). Emissions of CH₄ and VOCs may occur at any stage of exploration and production by way of venting, flashing, flaring, or fugitive/non-permitted emissions.

Jessica Gilman, *et al.*, *Source Signature of Volatile Organic Compounds (VOCs) from Oil and Natural Gas Operations in Northeastern Colorado*, ENVTL. SCI. & TECH., Jan. 14, 2013, at 2, attached as Exhibit 11. As residents of the Green River Basin know all too well, VOCs and NO_x can also combine in dangerous levels to contribute to regional ozone problems. *Id.* at 3.

Air toxics, such as benzene, from oil and gas facilities also create public health problems. For instance, studies in Colorado have “concluded that ambient benzene levels observed in the natural gas development area of Garfield County, Colorado demonstrate an increased potential risk of developing cancer as well as chronic and acute non-cancer health effects.” Lisa McKenzie, Testimony on: “Federal Regulation: Economic, job, and energy security implications of federal hydraulic fracturing regulation,” May 2, 2012, at 2, attached as Exhibit 12.

A greater setback is particularly justified in a rural state like Wyoming where there is not often a natural or man-made structural buffer between oil and gas infrastructure and homes. Studies show that air pollution can easily travel long distances between a well site and neighboring land; however, pollution, especially the types most harmful, is most dangerous in close proximity to the source.⁷

Therefore, a greater setback in Wyoming can serve an important purpose of preventing unsafe levels of air pollution from reaching nearby homes, schools, and hospitals. When Wyoming’s setback was established at 350 feet, little was known about air pollution impacts

⁷ See, e.g. Rottkin-Ellman at 5 (“an investigation by the California EPA found that the level of diesel contamination decreased substantially with distance from a major source of diesel emissions - Eighty percent of diesel contamination was lost by 1,000 feet from the source and nearly 99 percent by 2,000 feet.”).

from oil and gas activities, and the setback was not created with air pollution in mind. Given the breadth of scientific information available on the health impacts related to air pollution from oil and gas facilities, it is past time to reconsider Wyoming's setback to better protect the health and safety of the people of our state.

b. Greater setbacks are needed to reduce impacts to residents from noise, traffic, and light pollution

In addition to air pollution, oil and gas production brings with it increased noise, traffic, and light pollution – any of which can significantly impact nearby residents by decreasing their quality of life and value of their property.

Oil and gas wells, especially those that are hydraulically fractured, create significant amounts of truck traffic. For instance, the Bureau of Land Management has found that water needed to drill and complete a horizontal well in the Powder River Basin requires “about 700 round trips” of truck traffic. Bureau of Land Management, Environmental Assessment for the Mufasa Federal Well, at 3, attached as Exhibit 13. While Petitioners are not proposing a setback related to oil and gas roads, increasing the setback from wells and other infrastructure will help reduce the impacts of truck traffic on nearby residences because the destination of that truck traffic – the oil and gas wells – will be farther from homes.

c. Wells located close to homes may decrease property values and affect home financing

During a public hearing process to review changes to an ordinance related to oil and gas development, including setbacks, the town of Flower Mound, Texas contracted with Integra Realty Resources to prepare a Well Site Impact Study “to develop an opinion of the impact, if any, of the proximity of improved residential properties as a result of their proximity to natural gas well sites.” FLOWER MOUND, TEX., REV. ORDINANCES ch. 34, art. VII (adopted July 2011), at 3, attached as Exhibit 14. One of the study's main findings was that “*when houses are*

immediately adjacent to well sites there is a measureable impact of value. As distance from the well site increases, this affect quickly diminishes.” *Id.* at 4 (emphasis in original). The study found that property value declines ranged from -2% to -14%, and impacts “generally dissipated between 1,000 and 1,500 feet.” *Id.* This property value study was a key reason why Flower Mound adopted a setback of 1,500 feet.

In neighboring Colorado, homeowners have experienced similar declines in property values in oil and gas producing areas. Colorado real estate broker Adam Cox recently stated:

As a managing broker of 40 realtors on the Front Range, I hear from brokers of potential buyers balk at buying a home near a drilling or fracking site, even though that’s often where the discounted homes are. The reason these homes have reduced value is that they are so close to oil and gas activity. The flip side of that same coin is that there are homeowners struggling to sell their home near these sites because of low buyer interest. They often have to sell at significantly lower prices than when originally purchased due to the oil and gas industry neighbors.

Adam Cox, *Drilling and fracking have destroyed value of our most significant investment — our homes*, COLORADO STATESMAN, Jan. 18, 2013, attached as Exhibit 15.

Back here in Wyoming, homeowners have also experienced property declines resulting from the close proximity of their homes to oil and gas wells. In August 2009, the Fremont County Board of Equalization found that a home’s assessed value decreased 50% because of impacts related to natural gas development, including the fact that gas wells were as close as 350 feet from the home. Fremont County Board of Equalization, *In the matter of the protest of John and Catherine Fenton*, Docket No. 2009-34, Aug. 1, 2009, attached as Exhibit 16.

The proximity of wells to residences may also affect the ability of homeowners to obtain home financing, including new mortgages. A recent review from the Marcellus Shale Region of New York and Pennsylvania found that “a growing number of banks won’t give new mortgage loans on homes with gas leases because they don’t meet secondary mortgage market guidelines.”

Elisabeth Radow, *Homeowners and Gas Drilling Leases: Boon or Bust?*, NEW YORK STATE BAR ASS'N JOURNAL, November/December 2011 at 14, attached as Exhibit 17.

For all of the foregoing reasons, and others, it is high time for Wyoming to increase its oil and gas setback.

3. Creating a Violation for Accidents and Spills

On April 24, 2012, Chesapeake Energy lost control over one of its wells in Converse County, resulting in the evacuation of fifty neighboring property owners and the release of two million cubic feet of natural gas and up to 31,500 gallons of oil-based drilling mud. Mead Gruver, *Year after Wyoming Blowout, No Fines for Chesapeake*, ASSOCIATED PRESS, April 11, 2013, attached as Exhibit 18. The Commission investigated the accident and found it was caused by human error. *Id.* However, no fines were levied because the Supervisor determined that a fine was not appropriate because Chesapeake did not violate any of the Commission's rules. *Id.*

Chesapeake's accident last year is likely one of many incidents across the state where operators have not received fines or penalties for situations that endanger workers and neighboring property owners. Petitioners propose to correct this situation through rule changes that will ensure if oil and gas operations impact nearby property, that impact will be a violation of the rules. The resulting situation will be similar to how the Department of Environmental Quality ("DEQ") treats coal mines under the Environmental Quality Act, where "off-site" impacts from coal mines are a clear violation of the mining operator's permit and the DEQ rules. Similarly, under the proposed rules, if oil and gas operations release liquids or other substances on to land outside the well permit area, the situation should result in a corresponding violation of the rules and a fine commensurate with an amount that will deter similar accidents and problems in the future. This position was recently supported by the *Casper Star Tribune's* editorial board:

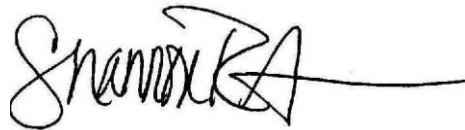
It seems odd that there's no penalty for tremendous risks to citizens and the environment posed by the failure to properly secure a well. There's no penalty for venting significant amounts of toxic natural gas into the air. There's no penalty for the expense of state and federal officials investigating the damage and cause of a well blowout caused, as far as investigators can tell, by operator error. If there are no rules against what Chesapeake did, the commission should consider changing its rules.

Editorial Board, *Commission Muffed Safety Decision*, CASPER STAR TRIBUNE, May 6, 2013, attached as Exhibit 19. Petitioners ask the Commission to heed the warning of the Chesapeake blowout situation and amend its rules to create a regulatory violation for off-site impacts from accidents and spills.

CONCLUSION

For the foregoing reasons, Petitioners respectfully request that, pursuant to WOGCC regulations Chapter 5, Section 9, the Commission set this Petition for Rulemaking for hearing as expeditiously as possible, receive comments and information, and adopt the amended regulations attached hereto as Exhibit 1.

Dated this 17th day of May, 2013.

A handwritten signature in black ink, appearing to read "Shannon Anderson", with a long horizontal line extending to the right.

Shannon Anderson
Powder River Basin Resource Council
934 N. Main St.
Sheridan, WY 82801
(307) 672-5809
sanderson@powderriverbasin.org